

and the Maritime Provinces were nearly everywhere well above the average. The most noticeable positive departures were Father Point, 4 inches; Montreal, 2 inches; Parry Sound, 2.4 inches, and the chief negative departures were Barkerville, 1.5 inches; Kamloops and Edmonton, 1.2 inches; Minnedosa, 0.8 inch; Sydney, 1.5 inches; Charlottetown, 1.0 inch.

CLEAR SKY AND CLOUDINESS.

The distribution of clear sky is graphically shown on Chart IV, and the numerical values of average daylight cloudiness, both for individual stations and by geographic districts, appear in Table I.

The cloudiness was normal in the Ohio Valley and Tennessee and North Dakota; above normal in the Lake region, Missouri Valley, and the middle slope and middle and southern Plateau regions; elsewhere it was below the normal.

The average cloudiness for the various districts, with departures from the normal, are shown in the following table:

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	4.9	- 0.6	Missouri Valley	5.6	+ 0.2
Middle Atlantic	4.6	- 0.6	Northern Slope	4.5	- 0.9
South Atlantic	3.3	- 0.6	Middle Slope	5.6	+ 0.8
Florida Peninsula	4.4	- 0.1	Southern Slope	3.8	- 0.7
East Gulf	3.6	- 0.7	Southern Plateau	2.7	+ 0.5
West Gulf	4.4	- 0.5	Middle Plateau	4.2	+ 0.1
Ohio Valley and Tennessee	5.1	0.0	Northern Plateau	5.2	- 0.4
Lower Lake	5.5	+ 0.3	North Pacific	5.4	- 0.5
Upper Lake	5.9	+ 0.4	Middle Pacific	2.8	- 1.4
North Dakota	5.3	0.0	South Pacific	3.8	- 0.4
Upper Mississippi Valley	5.0	- 0.2			

HUMIDITY.

The relative humidity was normal in the southern Plateau region; above normal in North Dakota, upper Mississippi Valley, the northern and middle slope and Plateau and south Pacific regions; and below normal in the remaining districts.

The averages by districts appear in the subjoined table:

Average relative humidity and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	76	- 2	Missouri Valley	64	- 1
Middle Atlantic	68	- 4	Northern Slope	64	+ 6
South Atlantic	68	- 6	Middle Slope	66	+ 5
Florida Peninsula	75	- 1	Southern Slope	59	- 12
East Gulf	65	- 6	Southern Plateau	32	0
West Gulf	71	- 4	Middle Plateau	48	+ 2
Ohio Valley and Tennessee	67	- 1	Northern Plateau	58	+ 2
Lower Lake	70	- 1	North Pacific	75	- 1
Upper Lake	71	- 1	Middle Pacific	60	- 6
North Dakota	67	+ 5	South Pacific	71	+ 2
Upper Mississippi Valley	69	+ 1			

DESCRIPTION OF TABLES AND CHARTS.

By Mr. W. B. STOCKMAN, District Forecaster, in charge of Division of Meteorological Records.

For description of tables and charts see page 136 of REVIEW for March, 1904.

WIND.

The maximum wind velocity at each Weather Bureau station for a period of five minutes is given in Table I, which also gives the altitude of Weather Bureau anemometers above ground.

Following are the velocities of 50 miles and over per hour registered during the month:

Maximum wind velocities.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Amarillo, Tex.	7	54	n.	North Head, Wash.	5	52	se.
Buffalo, N. Y.	26	55	w.	Do.	17	53	se.
Dodge, Kans.	24	60	s.	Point Reyes Light, Cal.	1	57	nw.
Galveston, Tex.	4	54	e.	Do.	2	61	nw.
Lexington, Ky.	25	52	sw.	Do.	3	72	nw.
Little Rock, Ark.	17	56	nw.	Do.	4	75	nw.
Marquette, Mich.	22	52	w.	Do.	5	60	nw.
Modena, Utah	1	52	sw.	Do.	6	70	nw.
Do.	18	53	sw.	Do.	7	55	nw.
Do.	25	52	sw.	Do.	10	63	nw.
Mount Tamalpais, Cal.	3	56	w.	Do.	13	66	nw.
Do.	6	53	nw.	Do.	14	62	nw.
Do.	10	50	nw.	Do.	15	52	nw.
Do.	13	59	nw.	Do.	18	67	nw.
Do.	18	68	nw.	Do.	19	52	nw.
Do.	24	60	sw.	Southeast Farallon, Cal.	14	55	nw.
Do.	31	52	nw.	Do.	15	50	nw.

ATMOSPHERIC ELECTRICITY.

Numerical statistics relative to auroras and thunderstorms are given in Table IV, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

Thunderstorms.—Reports of 5131 thunderstorms were received during the current month as against 5690 in 1903 and 2498 during the preceding month.

The dates on which the number of reports of thunderstorms for the whole country was most numerous were: 25th, 417; 26th, 362; 30th, 318; 31st, 303; 24th, 282.

Reports were most numerous from: Missouri, 266; Ohio, 260; Nebraska, 256; Kansas, 243; Texas, 237.

Auroras.—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four preceding and following the dates of full moon, viz, April 25 to May 3, inclusive, and May 25 to June 2, inclusive.

In Canada: Thunderstorms were reported from St. Johns, N. B., 27; Sydney, 27; Charlottetown, 20, 27; Quebec, 21; Montreal, 25; Ottawa, 22; Kingston, 25; Toronto, 23, 25, 26; Port Stanley, 13, 23, 26; Saugeen, 23, 25; Parry Sound, 23, 25, 26; Port Arthur, 6, 22, 29; Winnipeg, 21; Minnedosa, 26; Qu'Appelle, 2, 4, 27; Swift Current, 21, 28, 30; Edmonton, 21; Battleford 4.

Auroras were reported from Winnipeg, 14, 19; Swift Current, 12, 13, 16; Calgary, 12; Edmonton, 12, 13, 14, 17.

TABLE I.—Climatological data for Weather Bureau stations, May, 1904.

Table with columns for Stations, Elevation of instruments, Pressure, Temperature of the air, Precipitation, and Wind. Rows list various weather stations across different regions like New England, Mid. Atlantic States, S. Atlantic States, Florida Peninsula, East Gulf States, West Gulf States, Ohio Val. and Tenn., Lower Lake Region, and Upper Lake Region.

TABLE II.—Climatological record of voluntary and other cooperating observers, May, 1904.

Table with 12 columns: Stations, Temperature (Fahrenheit) (Maximum, Minimum, Mean), Precipitation (Rain and melted snow, Total depth of snow). Rows are categorized by state: Alabama, Arizona-Cont'd, Arkansas, California-Cont'd, Alaska, and California. Each row lists a station name and its corresponding weather data for May 1904.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with 15 columns: Stations, Temperature (Fahrenheit) (Maximum, Minimum, Mean), Precipitation (Rain and melted snow, Total depth of snow). The table is divided into three main sections: California—Cont'd., Colorado—Cont'd., and Florida—Cont'd., each listing various weather stations and their corresponding data for May 1904.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with columns for Stations, Temperature (Fahrenheit), and Precipitation. It is divided into three main sections: Idaho—Cont'd., Illinois—Cont'd., and Iowa—Cont'd. Each section lists various weather stations and their corresponding monthly data for temperature (Maximum, Minimum, Mean) and precipitation (Rain and melted snow, Total depth of snow).

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with 12 columns: Stations, Temperature (Fahrenheit), Precipitation, Stations, Temperature (Fahrenheit), Precipitation, Stations, Temperature (Fahrenheit), Precipitation. Rows are organized by state: Iowa, Kansas, Kentucky, Maine, Maryland, Louisiana, Massachusetts.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with columns for Stations, Temperature (Fahrenheit), and Precipitation. It is divided into three main sections: Massachusetts—Cont'd., Michigan—Cont'd., and Mississippi—Cont'd. Each section lists various locations and their corresponding weather data for the month of May 1904.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Missouri—Cont'd.</i>						<i>Nebraska—Cont'd.</i>						<i>Nebraska—Cont'd.</i>					
Sarcoixie	86	40	63.8	3.66	Ins.	Dawson	87	36	61.8	7.21	Ins.	York	90	42	62.6	2.51	Ins.
Sedalia	85	33	61.4	5.97		Edgar				2.14		<i>Nevada.</i>					
Seymour	85	33	61.4	3.67		Ericson				2.76		Amos	84	25	56.4	0.09	
Sikeston	90	44	65.4	4.80		Ewing				4.15		Austin	76	26	52.4	1.21	8.0
Steffenville	85	42	62.0	3.93		Fairbury	89	29	60.2	4.33		Battle Mountain		30		0.75	
Sublett	84	38	61.6	5.91		Fairmont	88	31	59.8	2.25		Belmont	81	27	53.0	0.23	1.0
Trenton	84	40	62.2	4.42		Fort Robinson	84	30	54.0	1.95	T.	Candelaria	84	34	57.0	0.17	
Unionville	84	38	60.6	4.16		Franklin	92	26	60.0	4.43		Carson City	85	28	55.6	0.10	0.1
Vichy	89	37	64.8	5.47		Fremont	89	35	60.5	5.10		Cranes Ranch				2.18	
Warrensburg	86	40	63.6	8.80		Fullerton				4.12		Dyer	89	24	59.0	1.75	
Warrenton	89	43	64.0	4.08		Geneva	89	32	60.8	2.84		Elko	76	27	48.7	1.55	5.0
Warsaw	88	34	62.1	5.52		Genoa (near)	92	35	62.0	6.52		Ely	84	26	53.2	2.23	
Wheatland				5.33		Gering	87	27	57.4	2.61		Eureka	82	10	51.4	T.	
Willowsprings	86	34	62.4	2.12		Gothenburg	95	28	60.0	4.23		Fallon	85	28	58.4	0.22	
Zeitonia	90	36	64.0	3.18		Grand Island b	94	30	63.2	1.51		Fenelon *1	80	37	53.8		
<i>Montana.</i>						Grant				2.13		Geyser	83	20	52.6	1.00	
Adel	74		47.9			Guide Rock				3.09		Glenbrook				0.10	
Anaconda	78	23	48.4			Halsey	88	30	58.6	4.76		Halleck *1	86	30	52.2	2.01	
Augusta	77	20	49.5	0.92	6.0	Hartington	87	35	57.2	4.50		Hamilton	76	11	46.8	0.30	3.0
Boulder	73	23	48.4	1.11	T.	Harvard	90	30	59.8	2.15		Hawthorne	90	35	60.4	0.00	
Bozeman	74	28	48.2	2.02	4.4	Hastings *1	90	40	60.8	1.64		Humboldt	84	33	58.6	0.22	2.0
Butte	72	28	49.0	1.02		Hayes Center				4.78		Lewers Ranch	86	28	57.2	0.15	0.5
Canyon Ferry	82	28	52.7	0.65	T.	Hay Spring	80	26	51.6	2.26	T.	Lovelocks *1	91	31	59.6	T.	
Cascade	84	25	54.0	1.52	T.	Hebron	88	33	60.9	4.49		Martins	98	26	60.3	0.21	
Chester	83	23	51.4	0.16	0.5	Holbrook				4.37		Mill City *1	84	32	52.6	0.00	
Chinook	86	26	54.6	2.11		Holdrege	95	25	60.6	3.90		Morey	89	23	54.8	1.50	4.0
Columbia Falls	81	22	50.2	1.57	T.	Hooper *1	92	42	60.6	5.24		Palisade	85	20	53.6	0.70	
Crow Agency	86	25	55.8	1.00	T.	Imperial	91	31	57.4	4.57	0.5	Palmetto	82	26	54.2	1.48	3.0
Culbertson	82	27	53.2	1.40		Johnstown				2.42		Pioche	87	24	55.8	1.17	
Cutbank				0.96		Kearney	92	29	60.9	2.78		Potts	85	20	50.4	1.77	5.5
Dayton	80	27	53.4			Kennedy	89	29	57.2	3.56		Reno State University	84	28	56.0	0.25	
Deer Lodge	76	25	48.8			Kimball	84	28	54.8	3.64		Sodaville	95	30	64.9	T.	
Dillon	78	25	52.0	2.54	T.	Kirkwood	92	30	59.8	3.10		Toano * 6	81	31	52.1	1.05	
Fort Benton	86	28	51.8	1.96		Leavitt	88	32	61.4	5.87		Wabaska	88	26	57.0	0.00	
Fort Harrison	86	34	56.3			Lexington	92	27	59.0	5.50		Wadsworth	88	40	66.6	0.01	
Glasgow	83	21	54.6	0.70		Lockridge	90	32	60.0	1.96		Wells *1	79	32	51.6	1.53	
Glendive	80	29	53.2	0.80	T.	Lodgepole	84	27	56.2	1.40		Wood	80	24	52.2	3.02	
Greatfalls	82	30	54.2	1.16		Loup	91	24	59.1	4.19		<i>New Hampshire.</i>					
Hamilton	81	28	53.7	1.31	1.0	Lynch	93	28	61.0	3.11		Alstead	81	35	58.8	3.59	
Lewistown	79	24	49.6	2.10	9.0	McCook				4.62		Bartlett				5.05	
Livingston	79	23	53.0	1.90	T.	McCool Junction				3.33		Berlin Mills	84	26	56.2	2.63	
Lodge Grass	95	26	58.8	2.56		Madison	89	32	58.7	4.65		Bethlehem	81	35	58.3	4.09	
Marysville	70	25	45.9	1.71	14.0	Madrid	89	24	57.2			Bretton Wood				2.93	
Missoula	84	30	54.0	1.20		Marquette				1.59		Brookline *1	88	33	62.0	4.28	
Ovando	75	23	48.0	1.06	T.	Mason				5.46		Chatham	83	29	56.8	4.80	
Parrot	79	28	51.7	0.88		Minden	91	30	59.5	2.55		Coucord	86	31	59.8	1.83	
Phillipsburg	89	20	49.5	1.10	T.	Monroe				5.83		Durham	85	31	59.4	3.29	
Plains	78	28	53.6	0.30		Nebraska City c	88	38	61.8	4.10		Franklin Falls	86	32	60.3	4.44	
Poplar	85	31	55.4	0.55		Nemaha				4.30		Grafton	85	31	59.6	4.15	
Red Lodge	75	23	47.2	4.29	4.0	Nemaha	90	29	59.6	5.02		Hanover	83	33	59.5	3.37	
Ridgelaun	85	27	54.6	0.57		North Loup	93	25	61.0	3.15		Jefferson Highlands				4.46	
St. Pauls	82	19	48.4	2.16		Oakdale	90	30	59.0	2.90		Keene	86	32	59.3	2.70	
St. Peter	77	18	48.9	2.29	18.0	Odell				5.35		Nashua	91	35	62.1	2.95	
Springbrook	83	27	53.6	1.43	T.	O'Neill	89	30	58.6	3.31		Newton	86	30	58.3	3.29	
Toston	84	24	53.2	1.40		Ord				2.76		North Woodstock				5.23	
Townsend				1.88		Osceola				2.84		Plymouth	85	32	60.2	5.14	
Troy	82	25	52.2	1.45		Palmer				2.90		Stratford	79	28	57.8	4.14	
Twin Bridges	80	24	50.6	0.30		Palmyra				5.05		<i>New Jersey.</i>					
Two Dot	82	27	54.0	1.72	13.5	Pawlet				2.56		Asbury Park	82	41	58.8	6.69	
Utica	82	24	49.0	1.94		Pawnee City	87	34	60.5	5.08		Barnegat	86	35	60.4	1.60	6.0
Wolf Creek	78	26	49.8	1.42	4.5	Plattsburgh a				3.74		Bayonne	90	39	62.8	1.75	
Wolsey	71	18	44.1	2.29	6.5	Plattsburgh b				4.34		Belvidere	92	37	64.2	2.93	
Yale	79	19	49.5	0.91	4.0	Purdum	88	28	57.6	4.60		Bergen Point	90	41	62.8	1.77	
<i>Nebraska.</i>						Ravenna a	92	28	59.8	2.50		Beverly	94	41	64.8	3.16	
Agate	80	21	53.4	2.56	T.	Ravenna b				2.28		Blairstown	92	35	62.8	2.97	
Agee *1	92	33	57.5	2.73		Redcloud	91	30	61.0	2.83		Bridgeton	94	40	65.8	1.92	
Albion	91	27	58.3	5.63		Republican				5.56		Canton				1.85	
Alliance	83	26	56.2	2.36		Rulo				4.41		Cape May C. H.	87	39	62.6	1.20	
Alma	96	29	62.8	4.39		St. Libory				1.36		Charlotteburg	81	31	58.5	3.16	
Ansley	91	25	58.8	5.83		St. Paul	94	29	62.2	1.95		Chester	86	36	61.8	2.96	
Arapahoe				2.68		Santee	91	36	61.8	3.71		Clayton b	92	39	64.2	1.86	
Arcadia				5.86		Schuyler				6.79		College Farm	94	39	64.0	2.79	
Ashland a	89	34	61.9	5.96		Seward	88	34	61.4	3.45		Dover	87	35	60.1	3.19	
Ashland b				7.44		Smithfield				6.02		Englewood	88	41	62.0	1.63	
Ashton				4.60		Spragg				5.15		Flemington	91	38	63.6	2.88	
Auburn	89	37	59.8	3.99		Springview	88	32	58.8	1.64		Friesburg	90	39	63.2	1.88	
Aurora	91	33	63.2	1.55		Stanton	91	32	59.8	4.10		Hightstown	93	40	64.4	3.12	
Bartley	100	23	62.0	2.74		Strang				3.38		Inlaystown	95	41	65.3	4.30	
Beatrice	87	34	61.9	4.52		Stratton				4.08		Indian Mills	97	36	64.9	2.02	
Beaver	95	32	61.9	3.53		Stromsburg				2.61		Lakewood	90	37	62.2	5.11	
Bellevue				6.68		Superior	86	33	59.0	2.10		Lambertville	91	37	64.2	2.34	
Benkleman				2.12		Syracuse				2.41		Layton	89	32	59.8	3.30	
Blair	91	35	60.6	7.87		Tablerock				4.07		Moorestown	92	40	63.6	3.23	
Bluehill				2.34		Tecumseh	91	31	62.2	4.19		Newark	90	40	62.7	2.93	
Bradshaw				2.07		Tekamah	91	37	61.6	5.29		New Brunswick	95	41	65.9	2.83	
Bridgeton	85	27	56.8	2.74		Turlington	87	35	61.2	3.85		Newton	92	34	62.4	3.60	
Broken Bow	91	26	58.7	5.06		University Farm	88	35	62.0	4.32		Oceanic	82	40	60.8	2.69	
Burchard				3.68		Wahoo				5.42		Paterson	92	40	65.2	3.07	
Burwell				3.30		Wakefield	89	32	58.8	3.77		Phillipsburg	92	39	63.9	2.88	
Callaway	94	26	60.0	4.24		Wallace				4.20		Plainfield	89	40	63		

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with 15 columns: Stations, Temperature (Fahrenheit) (Maximum, Minimum, Mean), Precipitation (Rain and melted snow, Total depth of snow). Rows are organized by state: New Jersey, New Mexico, New York, North Carolina, and North Dakota.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Ohio—Cont'd.</i>						<i>Oklahoma—Cont'd.</i>						<i>Pennsylvania—Cont'd.</i>					
Fremont	90	33	60.6			Pawhuska	92	39	64.1	2.62		Emporium	88	30	59.8		
Garrettsville	88	32	57.8			Perry	91	41	65.5	7.22		Ephrata	92	35	63.1		
Granville	91	31	60.8			Shawnee	92	45	66.9	6.47		Exeter	89	32	59.8		
Gratiot	90	30	60.9			Stillwater	91	42	66.0	7.28		Forks of Neshaminy					
Green	93	40	63.0			Taloga	91	36	66.6	3.56		Frankford	91	40	63.6		
Greenfield	89	35	62.6			Temple	96	44	69.8	3.40		Franklin	89	29	58.8		
Greenhill	87	31	58.4			Waukomis	95	41	66.8	5.64		Freepport	93	34	62.8		
Greenville	89	31	60.5			Weatherford	92	44	65.8	5.07		Gettysburg	91	42	64.5		
Hanging Rock	95	34	64.0			Whiteagle	93	42	66.0	6.11		Girardville					
Hedges	87	27	59.6			Woodward	99	42	68.2			Gordon	89	29	60.6		
Hillhouse	90	37	59.6			<i>Oregon.</i>						Greensboro					
Hiram	86	36	59.0			Albany				0.91		Hamburg	92	37	63.9		
Hudson	90	34	60.0			Alpha	89	32	56.8	1.78		Hanover	92	37	64.0		
Jacksonboro	86	37	62.2			Arlington	90	35	61.5	0.07		Herr's Island Dam					
Kenon	88	30	61.0			Ashland	89	30	58.4	0.19		Huntingdon a					
Killbuck	88	33	60.5			Astoria	72	40	54.2	1.32		Huntingdon b					
Lancaster	91	30	61.6			Aurora (near)	83	32	55.4	0.93		Indiana	88	29	61.2		
Lima	88	30	61.5			Bay City	78	34	51.3	1.65		Irwin	93	34	62.0		
McConnesville	90	30	60.8			Bend	83	29	51.2	0.43		Johnstown	94	34	62.8		
Manara	87	32	60.5			Beulah	86	25	52.3	0.00		Keating					
Mansfield						Blackbutte	82	34	53.8	2.20		Kennett Square	88	39	62.6		
Marietta	89	35	64.2			Blacklock	94	37	65.0			Lansdale					
Marion	91	29	60.4			Bullrun				1.39		Lawrenceville	91	28	59.8		
Medina	88	33	66.0			Butter Creek				0.38		Lebanon	91	38	63.2		
Millfordon	89	29	59.2			Cascade Locks	82	34	58.0	0.69		Leroy	86	34	60.0		
Milligan	90	29	60.8			Coculle	84	34	58.0	0.39		Lewisburg	90	32	62.9		
Millport	87	32	58.0			Corvallis	84	34	56.1	0.78		Lockhaven a	94	34	63.8		
Montpelier	89	32	59.4			Coyote	93	32	61.0	0.37		Lockhaven b					
Napoleon	83	32	58.2			Dayville	84	31	56.6	0.81		Lock No. 4					
Nellie	90	33	61.6			Detroit	87	31	55.8	1.95		Lycippus	87	36	61.9		
New Alexandria	91	37	61.1			Doraville	82	31	53.0	1.66		Marion	89	36	61.4		
New Berlin	90	36	59.9			Drain	85	34	56.5	1.53		Mifflin					
New Bremen	87	27	60.4			Ella				0.38		Middletown	90	31	62.0		
New Richmond	90	37	63.8			Eugene	80	36	55.9	2.29		Millford	90	33	60.8		
New Waterford	88	34	60.0			Fairview	82	33	53.2	1.42		Montrose	86	30	59.6		
North Lewisburg	86	31	60.3			Falls City	84	32	54.5	0.72		New Germantown	91	32	61.4		
North Royalton	86	34	59.2			Forestgrove	93	32	56.3	0.20		Oil City					
Norwalk	94	33	60.6			Gardiner	83	31	56.6	2.19		Parker					
Oberlin	89	33	59.6			Glenora	85	29	52.8	1.74		Philadelphia	92	44	66.4		
Ohio State University	88	31	59.9			Gold Beach	79	38	54.7	2.78		Pocono Lake	83	30	57.0		
Orangeville	89	35	59.8			Government Camp	70	24	43.9	2.72		Point Pleasant					
Ottawa	90	29	60.0			Grants Pass	94	33	59.0	0.16		Pottsville					
Pataskala	90	30	60.3			Hood River (near)	84	35	58.3	0.13		Quakertown	91	38	63.4		
Philo	91	35	63.2			Huntington	87	36	60.4	0.31		Reading	92	38	65.0		
Plattsburg	87	32	60.6			Jacksonville	92	33	60.2	0.38		Renovo	91	38	62.0		
Pomeroy	93	34	62.5			Joseph	75	24	50.8	1.50		Saegerstown	86	28	57.4		
Portsmouth a						Kerby	90	31	57.9	0.32		St. Marys	84	29	59.4		
Portsmouth b	92	38	64.2			Klamath Falls	88	29	58.0	0.45		Saltsburg					
Pulse	87	34	61.8			Lagrange	83	29	54.4	1.38		Seisholtzville					
Richwood	89	30	60.0			Lakeview	85	25	54.3	0.27		Selingsgrove	90	34	64.4		
Rittman	91	34	60.6			Lonerock	80	25	51.6	1.24		Shawmont					
Rockyridge	91	33	60.1			McKenzie Bridge	88	29	55.8	2.64		Skidmore	89	32	59.8		
Shenandoah	86	30	58.3			McMinnville	84	32	55.8	0.39		Smithport	84	27	55.4		
Sidney	90	31	61.4			Meacham				1.05		Smiths Corners					
Somerset	92	34	62.6			Monroe	81	33	56.2	1.32		Somerset	89	30	57.4		
Springfield						Mount Angel	85	39	58.4	0.72		South Eaton	88	35	61.2		
Thurman	93	36	64.0			Nehalem				2.32		Springmount					
Tiffin	88	34	59.8			Newport	65	37	50.6	1.68		State College	88	33	60.0		
Upper Sandusky	90	31	60.0			Ontario				0.20		Swarthmore	89	38	63.8		
Urbana	88	29	59.9			Paisley	83	33	57.6			Towanda	87	31	60.2		
Vickery	90	30	59.0			Pendleton	94	29	58.8	0.45		Trountrun					
Warren	91	36	59.8			Pine	84	22	52.4	0.54		Uniontown	90	37	63.0		
Wauseon	91	29	58.8			Prineville	83	30	55.1	0.58		Warren	86	30	58.2		
Waverly	95	32	63.6			Riverside	98	22	55.7	0.45		Wellsboro	88	29	60.3		
Waynesville	88	32	61.2			Salem	82	38	57.7	0.43		Westchester	90	41	64.0		
Wellington	89	34	60.2			Sparta	82	24	52.8	1.25		West Newton					
Willoughby						Stafford	82	34	56.3	0.63		Wilkesbarre	91	37	63.2		
Wilson	90	32	62.2			The Dalles	88	36	59.9	0.09		Williamsport	88	37	62.8		
Wooster	88	33	59.4			Toledo	80	35	53.0	1.78		<i>Rhode Island.</i>					
Zanesville						Umatilla	93	34	61.9	0.33		Bristol	73	39	58.3		
<i>Oklahoma.</i>						Yale	86	26	55.5	0.48		Kingston	81	35	57.8		
Arapahoe	94	39	63.5			Wallowa	80	25	52.6	1.05		Providence a	87	42	64.6		
Beaver	95	39	66.4			Wamic	86	27	52.8	0.65		Providence c	85	38	61.1		
Binger	91	40	67.0			Warm Spring	87	30	57.0	0.37		<i>South Carolina.</i>					
Busch						Weston	84	25	53.0	1.68		Aiken	98	47	71.4		
Chandler	93	41	67.1			Williams	90	31	58.3	0.18		Allendale	94	51	72.7		
Cleo	99	42	69.4			<i>Pennsylvania.</i>						Anderson	96	45	70.2		
Cloud Chief	95	40	67.7			Altoona	91	30	60.5	2.93		Barksdale	98	47	71.7		
Eldorado	100	41	73.2			Beaver Dam				3.50		Batesburg	91	48	69.6		
Enid	90	41	65.4			Bellefonte	91	38	63.2	3.34		Beaufort	91	53	72.0		
Fort Reno	91	43	67.2			Brookville				3.90		Bennettsville	94	50	73.8		
Fort Sill	94	44	69.0			Browsers				3.27		Blackville	97	47	71.7		
Frederick	97	43	71.3			California	87	36	60.8	3.68		Bowman	96	45	70.8		
Gage	92	38	66.6			Cassandra	87	29	58.1	3.11		Calhou Falls					
Grand						Centerhall	89	32	62.2	2.38		Camden					
Guthrie	92	46	66.8			Clarion				3.92		Cheraw a	92	47	69.0		
Harrington	90	43	66.5			Claysville	91	34	61.8	3.74		Cheraw b					
Hennessey	88	44	65.4			Cotesville	91	39	63.8	3.08		Clarks Hill	97	48	70.8		
Hobart	93	44	70.2			Coudersport	85	32	57.2	4.26		Clemson College	97	39	67.2		
Jefferson	92	40	65.8			Confluence				4.63		Conway	93	45	68.8		
Jenkins	95	38	66.9			Davis Island Dam				3.31		Darlington	95	45	69.9		
Keaton	91	34	63.5			Derry	87	32	62.0	2.96		Dillon	95	43	70.6		
Kingfisher	94	44	68.6			Doylestown				3.41		Due West	92	45	70.8		
McCumb	91	42	67.9			Pushore	85	27	59.5	4.94		Efingham					
Mangum	95	50	71.9			East Bloomsburg				3.18		Florence	95	45	71.0		
Meeker	95	42	68.6			East Mauch Chunk	94	36	63.3	3.35		Gaffney	99	45	70.5		
Newkirk	93	42	66.2			Easton	90										

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with 12 columns: Stations, Temperature (Fahrenheit) (Maximum, Minimum, Mean), Precipitation (Rain and melted snow, Total depth of snow). Rows are categorized by state: South Carolina, Tennessee, Texas, South Dakota, and Utah.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with multiple columns for stations, temperature (Maximum, Minimum, Mean), precipitation (Rain and melted snow, Total depth of snow), and specific weather data for various locations including Utah, Washington, West Virginia, and Wyoming.

TABLE II.—Climatological record of voluntary and other cooperating observers. Late reports for April—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Wyoming—Cont'd.</i>						<i>Porto Rico—Cont'd.</i>					
Kimball Ranch.....	77°	29°	51.6°	.....	.....	Santa Isabel.....	89	65	77.8	7.91	.....
Laramie.....	78	20	46.8	1.74	T.	Vieques.....	91	61	75.5	2.10	.....
Leo.....	74	23	47.8	1.24	6.0	Yauco.....	87	70	79.2	3.33	.....
Lolabama Ranch.....	70	17	43.3	1.89	1.0	<i>Mexico.</i>					
Lusk.....	83	24	51.5	2.71	.....	Coatzacoalcas.....	99	49	80.1	3.84	.....
Marquette.....	80	26	52.0	1.22	.....	Leon de Agramas.....	90	52	70.5	2.34	.....
Moore.....	79°	26°	50.2°	3.41	.....	<i>New Brunswick.</i>					
Phillips.....	79	24	52.4	4.75	.....	St. John.....	68	33	51.1	2.98	.....
Pine Bluff.....	83	25	53.2	4.08	T.	<i>Late reports for April, 1904.</i>					
Rawlins.....	85	20	52.9	1.91	.....	<i>Alaska.</i>					
Red Bank.....	79	27	50.0	3.67	T.	Coal Harbor.....	45	14	31.2	2.29	9.4
Rock Springs.....	79	19	51.2	1.32	.....	Coldfoot.....	56	-19	27.0	0.70	7.0
South Pass.....	72	21	44.8	2.00	20.0	Copper Center.....	58	8	34.2	0.24	1.5
Teusleep.....	85°	30°	52.6°	1.80	T.	Fort Gibbon.....	64	-12	26.2	0.09	2.0
Thayne.....	76	20	47.2	1.86	.....	Fort Lisicum.....	52	22	36.2	4.50	16.1
Thermopolis.....	80	28	51.8	5.80	.....	Fort Yukon.....	.....	-14	.....	3.08	4.8
Wells.....	68	14	41.0	0.71	T.	Kenai.....	55	.....	.....	0.34	3.0
Yellowstone Pk. (G. Can.)	62	9	39.2	.....	.....	Mine Harbor.....	45	3	27.7	1.42	27.0
Yellowstone Pk. (Lake) ..	72	13	41.3	0.73	3.0	Sunrise.....	56	29	35.4	5.08	21.6
Yellowstone Pk. (Foun'n)	66	19	41.4	0.85	.....	Wood Island.....	48	24	37.4	3.68	14.0
Yellowstone Pk. (U. Ba'n)	67	15	41.6	1.22	.....	<i>California.</i>					
Yellowstone Park (Norris)	70°	11°	41.2°	0.94	T.	Boca* ¹	72	16	32.8	0.05	0.5
<i>Porto Rico.</i>						Jolon.....	.....	.....	.....	1.77	.....
Adjuntas.....	86	52	71.3	2.35	.....	Ventura.....	86	44	60.1	1.53	.....
Aguirre.....	92	67	79.6	4.26	.....	<i>Florida.</i>					
Arecibo.....	91	57	72.6	3.17	.....	Fort Pierce.....	90	45	72.4	1.92	.....
Barros.....	87	56	71.8	1.04	.....	<i>Iowa.</i>					
Bayamon.....	92	60	77.1	.....	.....	Villisca.....	73	21	45.1	4.58	.....
Caguas.....	90	62	76.7	2.53	.....	<i>Michigan.</i>					
Canovanas.....	93	70	80.6	2.08	.....	Thomaston.....	66	-8	31.2	.....	.....
Cayey.....	85	59	73.0	1.75	.....	<i>Minnesota.</i>					
Cidra.....	88	.....	.....	8.97	.....	Campbell.....	74	19	38.4	3.08	4.0
Coamo.....	89	51	70.9	3.30	.....	<i>Nevada.</i>					
Corozal.....	92	51	71.8	2.16	.....	Elko.....	74	25	44.2	1.20	4.0
Fajardo.....	89	68	79.6	3.26	.....	<i>New Mexico.</i>					
Guanica.....	88	61	75.0	2.70	.....	Carlsbad.....	98 ^d	31 ^d	65.0 ^d	0.00	.....
Hacienda Colosa.....	90	62	76.4	15.71	.....	Engle.....	86	25	57.8	.....	.....
Hacienda Josefa.....	.....	.....	.....	6.90	.....	Luna.....	80	14	47.0	0.10	1.0
Hacienda Perla.....	90	70	79.6	10.36	.....	<i>North Carolina.</i>					
Humacao.....	89	74	82.0	5.20	.....	Brewers.....	82	19	50.0	1.57	T.
Isabela.....	87	63	76.2	7.09	.....	Pinchurst.....	84	31	58.0	0.85	.....
Juan Diaz.....	90	61	75.6	3.42	.....	<i>North Dakota.</i>					
La Carmelita.....	83	61	71.9	7.04	.....	Langdon.....	73	8	33.6	0.92	T.
La Isolina.....	90	62	75.8	5.01	.....	<i>South Dakota.</i>					
Lares.....	91	58	74.8	7.00	.....	Mellette.....	80	12	41.7	2.29	8.0
Las Marias.....	88	63	76.0	6.85	.....	<i>Washington.</i>					
Manati.....	97	63	78.8	3.10	.....	Silvana.....	75	30	49.6	3.35	.....
Maunabo.....	93	67	79.6	6.13	.....	<i>Wyoming.</i>					
Mayaguez.....	90	61	77.2	4.05	.....	Thayne.....	55°	2°	33.4°	0.84	4.0
Morovis.....	91	63	76.8	1.20	.....	<i>Porto Rico.</i>					
Ponce.....	89	63	78.9	2.19	.....	Adjuntas ^d	85	51	69.4	5.62	.....
Rio Blanco.....	89	62	77.8	10.20	.....					
Rio Piedras.....	.....	.....	.....	6.18	.....					
San Lorenzo.....	91	63	77.6	5.58	.....					
San Salvador.....	88	60	73.4	2.13	.....					

EXPLANATION OF SIGNS.

* Extremes of temperature from observed readings of dry thermometer.

A numerical following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:

- ¹ Mean of 7 a. m. + 2 p. m. + 9 p. m. + 9 p. m. + 4.
- ² Mean of 8 a. m. + 3 p. m. + 2.
- ³ Mean of 7 a. m. + 7 p. m. + 2.
- ⁴ Mean of 6 a. m. + 6 p. m. + 2.
- ⁵ Mean of 7 a. m. + 2 p. m. + 2.
- ⁶ Mean of readings at various hours reduced to true daily mean by special tables.

The absence of a numeral indicates that the mean temperature has been obtained from daily readings of the maximum and minimum thermometers.

An italic letter following the name of a station, as "Livingston a," "Livingston b," indicates that two or more observers, as the case may be, are reporting from the same station. A small roman letter following the name of a station, or in figure column, indicates the number of days missing from the record; for instance, "a" denotes 14 days missing.

No note is made of breaks in the continuity of temperature records when the same do not exceed two days. All known breaks of whatever duration, in the precipitation record receive appropriate notice.

TABLE III.—Resultant winds from observations at 8 a. m. and 8 p. m., daily, during the month of May, 1904.

Stations.	Component direction from—				Resultant.		Stations.	Component direction from—				Resultant.	
	N.	S.	E.	W.	Direction from—	Duration.		N.	S.	E.	W.	Direction from—	Duration.
<i>New England.</i>							<i>North Dakota—Continued.</i>						
Eastport, Me.	Hours	Hours	Hours	Hours	°	Hours	Williston, N. Dak.	Hours	Hours	Hours	Hours	°	Hours
Portland, Me.	15	26	18	18	s. 22 w.	11	23	19	23	15	n. 63 e.	9	
Concord, N. H. †	19	29	9	18	n. 27 w.	4	<i>Upper Mississippi Valley.</i>						
Northfield, Vt.	12	8	8	10	s. 6 w.	20	Minneapolis, Minn. *	8	8	9	w.	3	
Boston, Mass.	16	36	8	10	s. 81 w.	12	St. Paul, Minn.	20	16	22	n. 37 e.	5	
Nantucket, Mass.	17	19	15	27	s. 24 w.	22	La Crosse, Wis. †	13	10	7	n.	2	
Block Island, R. I.	11	31	14	23	s. 47 w.	18	Davenport, Iowa	19	18	20	n. 63 e.	3	
Narragansett, R. I. *	11	23	16	29	s. 23 w.	15	Des Moines, Iowa	19	19	19	n.	2	
New Haven, Conn.	3	17	6	12	s. 45 w.	4	Dubuque, Iowa	20	21	18	s. 63 w.	2	
<i>Middle Atlantic States.</i>							<i>Missouri Valley.</i>						
Albany, N. Y.	17	30	8	15	s. 28 w.	15	Columbia, Mo. *	11	10	9	n.	1	
Binghamton, N. Y. †	10	5	12	8	n. 39 e.	6	Kansas City, Mo.	19	20	22	s. 63 e.	2	
New York, N. Y.	14	20	21	18	s. 27 e.	7	Springfield, Mo.	18	24	20	s. 27 e.	7	
Harrisburg, Pa.	9	20	24	20	s. 20 e.	12	Topeka, Kans. *	8	12	9	s. 56 e.	7	
Philadelphia, Pa.	17	26	12	21	s. 45 w.	13	Lincoln, Nebr.	18	28	17	s. 31 e.	12	
Scranton, Pa.	20	24	14	19	s. 51 w.	6	Omaha, Nebr.	20	18	20	n. 72 e.	6	
Atlantic City, N. J.	13	26	16	22	s. 10 e.	11	Valentine, Nebr.	25	16	13	n. 48 w.	14	
Cape May, N. J.	13	26	17	17	s. 45 e.	10	Sioux City, Iowa †	13	10	9	n. 18 e.	3	
Baltimore, Md.	11	28	17	15	s. 38 w.	11	Pierre, S. Dak.	22	16	21	n. 27 e.	7	
Washington, D. C.	16	27	13	6	s. 48 w.	15	Huron, S. Dak.	20	19	20	n. 45 e.	1	
Cape Henry, Va. †	7	14	18	22	s. 53 w.	5	Yankton, S. Dak. †	6	7	15	s. 76 e.	4	
Lynchburg, Va.	15	24	21	10	s. 63 w.	9	<i>Northern Slope.</i>						
Norfolk, Va.	17	27	19	15	s. 56 w.	14	Havre, Mont.	18	20	15	s. 82 w.	14	
Richmond, Va.	17	27	19	15	s. 45 e.	6	Miles City, Mont.	24	14	17	n. 31 w.	12	
Wytheville, Va.	13	16	20	24	s. 45 e.	6	Helena, Mont.	15	15	4	w.	34	
<i>South Atlantic States.</i>							<i>Missouri Valley.</i>						
Asheville, N. C.	19	23	22	14	s. 23 e.	8	Columbia, Mo. *	11	10	9	n.	1	
Charlotte, N. C.	16	24	23	11	s. 72 e.	6	Kansas City, Mo.	19	20	22	s. 63 e.	2	
Hatteras, N. C.	17	21	20	16	s. 86 w.	9	Springfield, Mo.	18	24	20	s. 27 e.	7	
Kittyhawk, N. C. *	19	21	16	19	s. 30 e.	8	Topeka, Kans. *	8	12	9	s. 56 e.	7	
Raleigh, N. C.	19	23	19	16	s. 36 w.	9	Lincoln, Nebr.	18	28	17	s. 31 e.	12	
Wilmington, N. C.	16	23	18	12	s. 51 w.	11	Omaha, Nebr.	20	18	20	n. 72 e.	6	
Charleston, S. C.	21	23	18	12	s. 76 e.	21	Valentine, Nebr.	25	16	13	n. 48 w.	14	
Columbia, S. C.	15	22	21	16	s. 86 w.	9	Sioux City, Iowa †	13	10	9	n. 18 e.	3	
Augusta, Ga.	17	22	22	16	s. 5 w.	8	Pierre, S. Dak.	22	16	21	n. 27 e.	7	
Savannah, Ga.	15	26	16	17	s. 76 e.	11	Huron, S. Dak.	20	19	20	n. 45 e.	1	
Jacksonville, Fla.	18	23	30	10	s. 41 e.	9	Yankton, S. Dak. †	6	7	15	s. 76 e.	4	
<i>Florida Peninsula.</i>							<i>Middle Slope.</i>						
Jupiter, Fla.	12	19	30	15	s. 45 e.	8	Denver, Colo.	21	24	15	s. 18 w.	3	
Key West, Fla.	16	16	36	3	n. 27 e.	4	Pueblo, Colo.	24	13	26	n. 42 e.	15	
Sand Key, Fla. †	9	8	21	2	n. 34 e.	7	Concordia, Kans.	13	27	18	s. 16 e.	15	
Tampa, Fla.	25	6	23	24	n. 63 e.	4	Dodge, Kans.	17	24	27	s. 65 e.	17	
<i>Eastern Gulf States.</i>							<i>Southern Plateau.</i>						
Atlanta, Ga.	15	21	20	14	w. 18 w.	3	El Paso, Tex.	18	11	19	n. 55 w.	12	
Macon, Ga. †	14	10	7	5	n. 34 e.	7	Santa Fe, N. Mex.	12	27	22	s. 22 e.	16	
Pensacola, Fla. †	12	6	12	8	w. 18 w.	3	Flagstaff, Ariz.	19	10	6	w.	29	
Birmingham, Ala. †	10	8	12	8	s. 59 e.	6	Phoenix, Ariz.	15	11	27	n. 37 e.	5	
Mobile, Ala.	25	25	7	14	s. 41 e.	9	Yuma, Ariz.	12	28	8	s. 48 w.	24	
Montgomery, Ala.	22	19	16	17	s. 45 e.	16	Independence, Cal.	25	9	5	n. 63 w.	36	
Meridian, Miss. †	10	10	7	9	s. 40 e.	12	<i>Middle Plateau.</i>						
Vicksburg, Miss.	18	21	19	14	n. 85 e.	16	Carson City, Nev.	19	17	7	n. 85 w.	25	
New Orleans, La.	19	26	20	14	n. 76 w.	8	Winemucca, Nev.	27	10	16	n. 33 w.	20	
<i>Western Gulf States.</i>							<i>Southern Plateau.</i>						
Shreveport, La.	15	27	23	13	n. 57 e.	5	Modena, Utah.	14	16	32	n. 79 w.	16	
Fort Smith, Ark.	14	13	29	17	s. 43 e.	23	Salt Lake City, Utah.	32	15	16	n. 7 e.	17	
Little Rock, Ark.	20	18	16	24	s. 15 e.	30	Grand Junction, Colo.	27	16	19	n.	11	
Corpus Christi, Tex.	4	31	43	1	s. 33 e.	17	<i>Northern Plateau.</i>						
Fort Worth, Tex.	14	31	25	9	s. 67 e.	34	Baker City, Oreg.	25	23	15	n. 68 w.	5	
Galveston, Tex.	11	40	15	7	s. 41 e.	14	Boise, Idaho	23	14	13	n. 61 w.	18	
Palestine, Tex.	16	30	18	9	s. 45 w.	1	Lewiston, Idaho †	1	3	18	s. 76 e.	8	
San Antonio, Tex.	15	28	35	4	s. 27 e.	9	Pocatello, Idaho	4	14	22	s. 39 w.	13	
Taylor, Tex. †	6	16	12	2	w.	14	Spokane, Wash.	14	27	12	n. 28 w.	15	
<i>Ohio Valley and Tennessee.</i>							<i>Middle Plateau.</i>						
Chattanooga, Tenn.	12	23	15	26	n. 41 w.	11	Walla Walla, Wash.	7	32	18	s. 5 e.	25	
Knoxville, Tenn.	24	16	16	23	n. 53 w.	5	<i>North Pacific Coast Region.</i>						
Memphis, Tenn.	24	21	15	19	n. 41 w.	9	North Head, Wash.	30	10	8	n. 51 w.	32	
Nashville, Tenn.	24	17	16	22	s. 11 e.	10	Port Crescent, Wash. *	12	2	5	n. 58 w.	19	
Lexington, Ky. †	3	13	11	9	s. 45 w.	1	Seattle, Wash.	22	14	19	n. 7 e.	8	
Louisville, Ky.	17	22	18	18	s. 9 e.	6	Tacoma, Wash.	27	17	8	n. 62 w.	16	
Evansville, Ind. †	11	10	9	10	s. 27 e.	9	Tatoosh Island, Wash.	8	16	15	s. 68 w.	22	
Indianapolis, Ind.	21	22	16	17	s. 27 e.	9	Portland, Oreg.	23	17	13	n. 65 w.	14	
Cincinnati, Ohio.	13	19	22	21	w.	14	Roseburg, Oreg.	31	5	23	n. 19 e.	28	
Columbus, Ohio.	13	21	23	19	s. 31 w.	6	<i>Middle Pacific Coast Region.</i>						
Pittsburg, Pa.	21	21	11	25	s. 74 w.	22	Eureka, Cal.	35	9	6	n. 30 w.	30	
Parkersburg, W. Va.	15	20	18	21	s. 22 w.	31	Mount Tamalpais, Cal.	31	5	2	n. 55 w.	45	
Elkins, W. Va.	18	24	4	25	s. 24 w.	20	Red Bluff, Cal.	38	15	11	n. 10 e.	23	
<i>Lower Lake Region.</i>							<i>Southern Plateau.</i>						
Buffalo, N. Y.	7	36	10	22	s. 43 w.	29	Sacramento, Cal.	21	30	9	s. 18 w.	20	
Oswego, N. Y.	11	29	13	21	s. 44 w.	29	San Francisco, Cal.	3	12	2	s. 79 w.	49	
Rochester, N. Y.	7	28	11	31	s. 52 w.	16	Point Reyes Light, Cal. *	18	4	0	n. 65 w.	24	
Syracuse, N. Y.	12	26	8	21	s. 18 e.	10	Southeast Farallon, Cal. *	16	3	1	n. 57 w.	24	
Erie, Pa.	10	20	14	27	s. 27 w.	7	<i>South Pacific Coast Region.</i>						
Cleveland, Ohio.	17	26	19	16	s. 45 w.	1	Fresno, Cal.	42	2	4	n. 33 w.	48	
Sandusky, Ohio †	6	12	8	11	s. 45 w.	8	Los Angeles, Cal.	3	20	16	s. 43 w.	23	
Toledo, Ohio.	14	20	18	24	s. 79 w.	10	San Diego, Cal.	13	20	8	s. 74 w.	26	
Detroit, Mich.	19	21	13	23	s. 27 w.	10	San Luis Obispo, Cal.	19	19	3	w.	23	
<i>Upper Lake Region.</i>							<i>West Indies.</i>						
Alpena, Mich.	23	16	22	19	n. 23 e.	8	Basseterre, St. Kitts, W. I.						
Escanaba, Mich.	31	18	13	11	n. 31 w.	6	Bridgetown, Barbados.						
Grand Rapids, Mich.	17	22	18	21	s. 27 e.	4	Cienfuegos, Cuba.						
Houghton, Mich. †	6	2	15	13	n. 40 w.	17	Colon, Colombia, S. A. †						
Marquette, Mich.	28	15	12	23	s. 45 w.	4	Curacao, W. I.						
Port Huron, Mich.	19	22	17	20	s. 87 w.	17	Grand Turk, W. I. †	2	13	22	n. 62 e.	24	
Sault Ste. Marie, Mich.	14	15	14	31	n. 53 e.	10	Hamilton, Bermuda.	14	32	13	s. 9 e.	19	
Chicago, Ill.	23	22	18	16	n. 14 e.	32	Havana, Cuba †	1	3	30	s. 86 e.	30	
Milwaukee, Wis.	24	14	16	21			Kingston, Jamaica.						
Green Bay, Wis.	25	19	19	11			Port of Spain, Trinidad †						
Duluth, Minn.	35	4	24	16			Puerto Principe, Cuba.						
<i>North Dakota.</i>							<i>West Indies.</i>						
Moorhead, Minn.	22	20	22	17	n. 68 e.	5	Roseau, Dominica, W. I. †						
Bismarck, N. Dak.	27	17	20	10	n. 45 e.	14	San Juan, Porto Rico	3	53	44	n. 55 e.	52	
							Santiago de Cuba, Cuba.						

* From observations at 8 p. m. only.

† From observations at 8 a. m. only.

TABLE IV.—Thunderstorms and auroras, May, 1904.

States.	No. of stations.	Days.																															Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	No.	Days.		
Alabama	60	2			2		4	2					2			4									1		2	3	1	6	15	4	48	13	T.	
Arizona	56	1	1					1	2	5	4	5	6	3						1	3			4	1							37	0	A.		
Arkansas	57	10			5	4	12	4	5	1			3		1	6	15	1					1	1		1	13	3	8	17	3	114	0	T.		
California	167	1	1	1	1			1					2		1		2	1	1	1	3	6	5		1	2		1			31	0	T.			
Colorado	70	7	17	8	9	1	3	6					1	4	9	8		4	6	8	12		5	15	14	8	4	5	5	2	8	169	0	T.		
Connecticut	21																		3	6	1				13	12	8			10	3	56	8	T.		
Delaware	5	2							3	3					1				2								1	1		1	1	15	0	A.		
Dist. of Columbia	4								1					1						1												3	3	T.		
Florida	61	5	12	2	1	7	4	1	2	2	6	2	1	7	2	10	11	6	2	1			1		1			3	6	2	8	118	0	T.		
Georgia	67		7	2				2	1	2				8	1		2								1		1	2	2	13	19	21	84	15	T.	
Idaho	34		1		1		1										1	3	6	2				1						4	10	33	11	T.		
Illinois	84			2		10	27	20	11	16		1	9	5					3				10	24	19	2	12	1		6		178	17	T.		
Indiana	58		4	15		4	3	4	5	16	1		2	1				1	1						29	19	2	20	2		18	6	2	155	20	T.
Indian Territory	20	2		3	1	3	4		2				1	5		1	4			3	1					2	1	2	3	5	1	1	45	19	T.	
Iowa	128				1	21	11	15	3	3	1	1	21	3	1	1	2	1	1				1	14	4	40	35	7		2	4		196	0	T.	
Kansas	88	6	1	16	23	21	6	12	13			2	10	1	2	13	7		1	1	7	9	1	5	6	23	9	2	15	10	3	18	243	28	T.	
Kentucky	41		1	1					3					1											13	4	1	5	1		13	10	1	54	12	T.
Louisiana	46	15	2			5	6	4	2	2				3		1	12	2								1	8	8	11	2	2		86	17	T.	
Maine	25															1				5	6		8	1	1	3	6	5	1	1	1		39	12	T.	
Maryland	42	14	5					1		20	6			13	2	1		11	4					1	2	12	3			12	6		113	16	T.	
Massachusetts	48										2		1	1			4		3	18	16				22	21	18			3			107	9	T.	
Michigan	106				1		7	7	8	2		2	6	3				1	1	1	2	17	15	4	15	9	1		5			107	19	T.		
Minnesota	67				20	5	15	1										1		1		7	16	6	9	4	4		1		7	5	102	0	T.	
Mississippi	57	4			2	1	4	3	5				2	1		5			1									6	3	10	10		57	14	T.	
Missouri	86	1			28	24	27	10	4	11			11	3		4	3	9	5	1		1	16	15	5	19	17		15	24	9	4	266	24	T.	
Montana	54	2	2		2		1				2	1	2	4	1	8	7			2		1								9	10	13	51	12	T.	
Nebraska	137	2	1	4	15	23	1	14	4				17						1	4	6	3	2	22	22	1	6	26	6	13	49	256	24	T.		
Nevada	40												3	1					1	3	2	1	1	6	1	2						21	10	T.		
New Hampshire	21									2					2	4				6	5	1	2			14	10			1			47	10	T.	
New Jersey	48	10							8	13				1	4				5						14	15	6	1			27	9		113	0	T.
New Mexico	31		1			1	1					1	3	2					2	4	6	2	3		2	3	3					38	0	T.		
New York	129								3	1	1			13	1					2	4	6	2	3		26	4	69	42	10		7		222	14	T.
North Carolina	56	2	11	5		2	1	1	3	18	11			11			10	23					1		9	5	1	10	4	8	12	15	163	0	T.	
North Dakota	48	3				5	7	2	2			4	1	2					2								2		1		8		40	12	T.	
Ohio	101		4	12	1		1		2		3	1	1	7				1	12	3	1	1		48	25	44	45	2	2	15	13	18	260	9	T.	
Oklahoma	36	2		12		8	1	2	1				3	9		1	7	3		1	2	1	1			5		4	10	6		3	82	1	T.	
Oregon	70													1				5	1					1	3	1	1						20	9	T.	
Pennsylvania	91	6	10	2					2	9	5			16	17	2	1	12	11					15	6	24	32	7		1	15	20	213	0	T.	
Rhode Island	6	1																		1	3	1				5	1	2			2	1		18	0	T.
South Carolina	54	1	9	2				4	3	8	4			14	9		4	5	2		1							4	2	10	15	21	112	0	T.	
South Dakota	56	2				6		2	1	1	1	1				1	1	1		1	2	5	4	1	7	1		1	2	1	12	5	59	2	T.	
Tennessee	56	1	4	12	4	2	1	5	5	6			10	3		1	3							1	1	3	8	6		17	15	11	119	0	T.	
Texas	126	14	10	32	15	11	27	1	4	4		2	2	11		8	10	18	1	4	2	1			2	3	7	11	18	16	3	237	26	T.		
Utah	64	2	5	4	2								7	14	1				1	10	10	2	2	2	16	4	13	6		3		104	0	T.		
Vermont	12																		2	3				6		1	9	4					25	0	T.	
Virginia	40	1	4	1						20	4			11	3		5	17	3					6	7	1	6	1	2	8	19	120	0	T.		
Washington	71		1			1	1				1			1			3	1		1	1		1		4		1	1	1	2	1		22	16	T.	
West Virginia	47	1	7	4						8				1	1	1			3	11				9	10	8	16	5		7	14	10	114	0	T.	
Wisconsin	63					10	7	16	5			4	12	1	1	1														4			125	0	T.	
Wyoming	38	4	5	5	2		1	1			2			8					8	1	1	5		1	2	1			9	7	12	94	3	T.		
Sums	2993	124	126	145	114	192	172	157	104	165	70	30	104	92	143	94	97	99	151	158	91	76	128	249	282	417	362	160	136	272	318	303	5,131	27	T.	

TABLE VII.—Heights of rivers referred to zeros of gages—Continued.

Stations.	Distance to mouth of river.	Danger line on gage.	Highest water.		Lowest water.		Mean stage.	Monthly range.	Stations.	Distance to mouth of river.	Danger line on gage.	Highest water.		Lowest water.		Mean stage.	Monthly range.
			Height.	Date.	Height.	Date.						Height.	Date.	Height.	Date.		
<i>Missouri River—Cont'd.</i>	<i>Miles.</i>	<i>Feet.</i>	<i>Feet.</i>		<i>Feet.</i>		<i>Feet.</i>	<i>Feet.</i>	<i>White River.</i>	<i>Miles.</i>	<i>Feet.</i>	<i>Feet.</i>		<i>Feet.</i>		<i>Feet.</i>	<i>Feet.</i>
Pierre, S. Dak.	1,114	19	9.0	31	5.8	23	6.6	3.2	Newport, Ark.	150	26	17.0	1	4.1	31	10.5	12.9
Stoax City, Iowa	784	18	9.7		8.6	27,28	9.1	1.1	Yazoo River.								
Omaha, Nebr.	669	10	10.3	1,20	9.6	5,15	9.9	0.7	Yazoo City, Miss.	80	26	22.3	1	7.0	31	17.0	15.3
Plattsmouth, Nebr.	641	17	6.5		5.1	4,5	5.8	1.4	<i>Ouachita River.</i>								
St. Joseph, Mo.	481	10	7.4		5.4	6	5.9	2.0	Camden, Ark.	304	39	22.3	1,11	6.0	31	12.2	16.3
Kansas City, Mo.	388	21	19.4	31	12.7	26	15.1	6.7	Monroe, La.	122	40	27.3	1	14.8	31	23.8	12.5
Glasgow, Mo.	231		14.7	1	7.7	28	10.3	7.0	<i>Red River.</i>								
Boonville, Mo.	199	20	18.1	1	11.6	28	13.8	6.5	Arthur City, Tex.	688	27	14.2	8	5.4	5,6	8.1	8.8
Hermann, Mo.	103	24	21.1	1	13.0	26	15.7	8.1	Fulton, Ark.	515	28	18.0	11	7.4	31	11.2	10.6
<i>Des Moines River.</i>									Shreveport, La.	327	29	11.0	1	4.6	31	7.6	6.4
Des Moines, Iowa.	205	19	6.3	1,29,30	3.8	25	4.8	2.5	Alexandria, La.	118	33	14.4	4	6.3	31	11.1	8.1
<i>Illinois River.</i>									<i>Atchafalaya River.</i>								
Peoria, Ill.	135	14	16.2	1	11.7	30,31	13.6	4.5	Melville, La.	100	31	34.3	2-4	31.4	31	33.5	2.9
<i>Allegheny River.</i>									<i>Mohawk River.</i>								
Warren, Pa.	177	14	6.9	19	1.5	17,18	3.4	5.4	Utica, N. Y.	98							
Oil City, Pa.	123	13	7.4	20	1.9	15	3.8	5.5	Tribeshill, N. Y.	42		3.0	1	1.4	14	0.0	4.4
Parker, Pa.	73	20	8.0	20	2.0	13,14	4.2	6.0	Schenectady, N. Y.	19		6.8	1	1.5	15	2.9	5.3
Freeport, Pa.	29	20	11.3	29	4.3	14	7.3	7.0	<i>Hudson River.</i>								
<i>Red Bank Creek.</i>									Glens Falls, N. Y.	197		12.1	1	6.5	31	8.4	5.6
Brookville, Pa.	35	8	2.5	19	0.6	13-18,28-30	0.9	1.9	Mechanicsville ¹								
<i>Clarion River.</i>									Troy, N. Y.	154		13.7	1	5.4	31	7.6	8.3
Clarion, Pa.	32	10	7.0	19	1.5	14	3.2	5.5	Albany, N. Y.	147		9.8	1	3.4	25	5.6	6.4
<i>Conemaugh River.</i>									Stuyvesant, N. Y. ¹	128							
Johnstown, Pa.	64	7	5.0	19	1.6	17,18	2.6	3.4	<i>Passaic River.</i>								
<i>Cheat River.</i>									Chatham, N. J.	69		3.5	2	2.3	27-30	2.7	1.2
Rowlesburg, W. Va.	36	14	6.0	21	2.6	15,31	3.4	3.4	<i>Pompton River.</i>								
<i>Youghiogheny River.</i>									Pompton Plains, N. J. ²	6		4.4	18,20,31	4.2	22-25, 29,30	0.2	
Confluence, Pa.	59	23	3.8	19	1.0	16-18	2.2	2.8	<i>East Branch Susquehanna.</i>								
West Newton, Pa.	15	10	6.0	20	1.1	14	2.6	4.9	Binghauntou, N. Y.	306	16	5.1	1	2.4	29-31	3.1	2.7
<i>Monongahela River.</i>									Towanda, Pa.	262	16	6.3	20	1.7	14	3.2	4.6
Weston, W. Va.	161	18	0.4	1,2	0.3	11-14,19	0.0	0.7	Wilkesbarre, Pa.	183	17	11.5	1	4.8	14,15	7.1	6.7
Fairmont, W. Va.	119	25	17.9	1	14.7	13,14	15.6	3.2	<i>West Branch Susquehanna.</i>								
Greensboro, Pa.	81	18	11.8	1	7.3	14,15	8.6	4.5	Lockhaven, Pa.	65	12	3.5	20	-0.3	13-15,19	1.1	3.8
Lock No. 4, Pa.	40	28	14.2	1	6.9	14,16	9.0	7.3	Williamsport, Pa.	39	20	7.8	1	2.5	14	4.4	5.3
<i>Ohio River.</i>									<i>Susquehanna River.</i>								
Pittsburg, Pa.	966	22	11.2	1	3.2	11	6.6	8.0	Selingsgrove, Pa.	116	17	6.2	21	1.7	14	3.2	4.5
Davis Island Dam, Pa.	960	25	11.8	1	4.7	14	7.8	7.1	Harrisburg, Pa.	69	17	8.5	1	3.2	14	4.9	5.0
Beaver Dam, Pa.	925	27	17.5	1	6.0	13,15	10.5	11.5	<i>Juniata River.</i>								
Wheeling, W. Va.	875	36	18.2	1	5.6	15	10.4	12.6	Huntingdon, Pa.	90	24	7.1	19	3.7	12-14, 17,18,30	4.2	3.4
Parkersburg, W. Va.	785	36	23.4	1	6.5	16	10.9	16.9	<i>Potomac River.</i>								
Point Pleasant, W. Va.	703	39	26.2	1	5.3	18	12.9	20.9	Cumberland, Md.	290	8	6.4	12,13	4.4	27,28	5.4	2.0
Huntington, W. Va.	660	50	30.9	1	8.8	18	16.9	22.1	Harpers Ferry, W. Va.	172	18	7.5	1	1.5	19,31	3.1	6.0
Catlettsburg, Ky.	651	50	31.9	1	7.7	18	16.6	24.2	<i>Shenandoah River.</i>								
Portsmouth, Ohio	612	50	32.5	1	9.0	19	17.5	23.5	Riverton, Va.	58	22	4.0	1	0.5	12-31	0.7	3.5
Cincinnati, Ohio.	499	50	32.9	2	10.7	20	20.1	23.2	<i>James River.</i>								
Madison, Ind.	413	46	28.5	3	9.8	20	16.6	18.7	Lynchburg, Va.	260	18	6.9	19	2.0	5-7,12-15,30,31	2.7	4.9
Louisville, Ky.	367	28	10.9	3	5.0	22	7.7	5.9	Richmond, Va.	111	12	4.8	21	-0.7	15	1.0	5.5
Evansville, Ind.	184	35	25.1	5,6	8.0	24	15.4	17.1	<i>Dan River.</i>								
Paducah, Ky.	47	40	28.4	6,7	9.7	28	18.7	18.7	Danville, Va.	55	8	1.7	19	-0.2	7,29,30	0.1	1.9
Cairo, Ill.	1	45	42.0	6	2.2	28	31.8	19.9	<i>Roanoke River.</i>								
<i>Beaver River.</i>									Clarksville, Va.	196	12	8.8	19	3.2	30	4.5	5.6
Ellwood Junction, Pa.	10	14	5.8	28	2.2	22,25	3.3	3.6	Weldon, N. C.	129	30	15.6	20	9.0	30	10.1	6.6
<i>Muskingum River.</i>									<i>Cape Fear River.</i>								
Zanesville, Ohio.	70	20	13.5	1	8.5	15,16,20-23	9.6	5.0	Fayetteville, N. C.	112	38	8.2	20	2.3	31	4.8	5.9
<i>Little Kanawha River.</i>									<i>Waccamaw River.</i>								
Glenville, W. Va. ¹	103	20							Conway, S. C.	40	7	2.8	3-5	1.6	12-15, 27,28	2.2	1.2
<i>New River.</i>									<i>Pedee River.</i>								
Radford, Va.	155	14	5.0	19	0.8	8	1.8	4.2	Cheraw, S. C.	149	27	8.1	21	1.5	31	2.7	6.6
Hinton, W. Va.	95	14	5.9	20	2.0	31	2.9	3.9	Smiths Mills, S. C.	51	16	7.8	24	1.8	31	4.2	6.0
<i>Great Kanawha River.</i>									<i>Lynch Creek.</i>								
Charleston, W. Va.	58	30	9.7	22	4.4	10	6.7	5.3	Effingham, S. C.	85	12	4.5	24,25	3.6	31	4.1	0.9
<i>Scioto River.</i>									<i>Black River.</i>								
Columbus, Ohio.	110	17	5.6	1	2.7	13-21,30,31	3.2	2.9	Kingstree, S. C.	52	12	3.4	10-13	1.1	29,30	2.5	2.3
<i>Licking River.</i>									<i>Wateree River.</i>								
Falmouth, Ky.	30	25	4.5	1-3	1.7	26-29	3.2	2.8	Camden, S. C.	45	24	11.9	12	5.5	31	6.8	6.4
<i>Miami River.</i>									<i>Congaree River.</i>								
Dayton, Ohio.	77	18	2.1	1	1.4	13-17,26,27	1.6	0.7	Columbia, S. C.	37	15	-0.2	1-3	-1.4	26-31	-0.9	1.2
<i>Kentucky River.</i>									<i>Santee River.</i>								
Beattyville, Ky.	254	30	3.5	1	1.0	25-30	1.7	2.5	St. Stephens, S. C.	50	12	4.8	15	0.0	31	2.3	4.8
High Bridge, Ky.	117	17	12.9	1	9.7	29,30	10.6	3.2	<i>Savannah River.</i>								
Frankfort, Ky.	65	31	8.8	1	6.4	27-30	7.0	2.4	Calhoun Falls, S. C.	347	15	3.4	9	1.7	29	2.2	1.7
<i>Wabash River.</i>									Augusta, Ga.	268	32	9.3	11	5.8	28-31	6.9	3.5
Mount Carmel, Ill.	50	15	14.7	2	4.8	23-25	7.1	9.9	<i>Broad River.</i>								
<i>Clinch River.</i>									Carlton, Ga.	30	11	3.5	9	1.8	25-29	2.2	1.7
Speers Ferry, Va.	156	20	2.5	1	-0.2	28	0.6	2.7	<i>Oconee River.</i>								
Clinton, Tenn.	62	25	10.0	1	3.5	30	5.8	6.5	Dublin, Ga.	79	30	1.0	1-3,13-15	-1.5	30	0.3	2.5
<i>Holston River.</i>									<i>Ocmulgee River.</i>								
Bluff City, Tenn.	170	15	3.0	4	0.8	26-31	1.5	2.2	Macon, Ga.	203	18	5.3	10	1.			

TABLE VII.—Heights of rivers referred to zeros of gages.—Continued.

Table with columns for Stations, Distance to mouth of river, Danger line on gage, Highest water (Height, Date), Lowest water (Height, Date), Mean stage, Monthly range, and similar columns for a second set of stations.

1 No record.

2 14 days only.

3 Record incomplete.

HAWAIIAN CLIMATOLOGICAL DATA.

By R. C. LYDECKER, Territorial Meteorologist.

Rainfall data for May, 1904.

Table with columns for Stations, Elevation, Amount, and similar columns for a second set of stations, detailing rainfall data for May 1904.

NOTE.—The letters n, s, e, w, and c show the exposure of the station relative to the winds.

Meteorological Observations at Honolulu, May, 1904.

The station is at 21° 18' north, 157° 50' west. It is the Hawaiian Weather Bureau station Punahou. (See fig. 2, No. 1, in the MONTHLY WEATHER REVIEW for July, 1902, page 365.)

The pressure is corrected for temperature and reduced to sea level, and the gravity correction, -0.06, has been applied.

The average direction and force of the wind and the average cloudiness for the whole day are given unless they have varied more than usual, in which case the extremes are given.

Rainfall for twenty-four hours is measured at 9 a. m. local, or 7:31 p. m., Greenwich time. The rain gage, 8 inches in diameter, is 1 foot above ground. Thermometer, 9 feet above ground. Ground is 43 feet and the barometer 50 feet above sea level.

Table with columns for Date, Pressure at sea level, Temperature (Dry bulb, Wet bulb), and various weather metrics like Wind, Cloudiness, Sea-level pressures, and Total rainfall at 9 a. m., local time.

Mean temperature for the month of May, 1904 (9 + 2 + 9) + 3 = 74.1°; normal is 74.1°. Mean pressure for the month of May, 1904, (9 + 3) + 2 = 30.010; normal is 30.030.

* This pressure is as recorded at 1 p. m., Greenwich time. † These temperatures are observed at 6 a. m., local, or 4:31 p. m., Greenwich time. ‡ These values are the means of (6 + 9 + 2 + 9) + 4. § Beaufort scale. ¶ 1-10-2.

Maximum thermometer set at 9 p. m. and minimum at 2 p. m., local time.

GENERAL SUMMARY FOR MAY, 1904.

Honolulu.—Temperature mean for the month, 74.1°; normal, 74.1°; average daily maximum, 80.7°; average daily minimum, 68.3°; mean daily range, 12.4°; greatest daily range, 20° (11th); least daily range, 6° (6th); highest temperature, 84° (23d); lowest temperature, 61° (11th).